DIRECT VENT COUNTERFLOW WALL FURNACE

INSTALLATION AND OPERATING INSTRUCTIONS

P/N 72900 - REV. 04/2013

24 VOLT SYSTEM WITH LOW-BTU PILOT

MODEL NUMBERS		
NAT. GAS	DVCF403C-H	DVCF553C-H
L.P. GAS	DVCF404C-H	DVCF554C-H

INSTALLER: Leave this manual with the appliance.
CONSUMER: Retain this manual for future reference.

24 VOLT SYSTEM W/INTERMITTENT IGNITION (IID)

MODEL NUMBERS		
NAT. GAS	DVCF407C-H	DVCF557C-H
L.P. GAS	DVCF408C-H	DVCF558C-H

The coating selected to provide longer life to the heat exchanger may smoke slightly upon initial firing. Please provide adequate ventilation if this occurs.

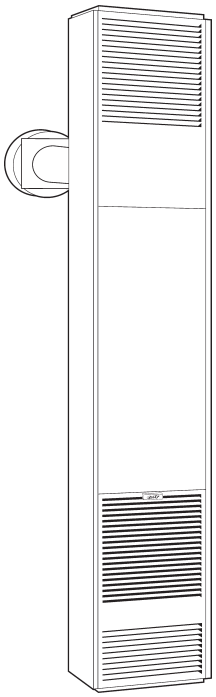
WARNING: If the information in this manual is not followed exactly, a fire or explosion may result causing property damage, personal injury or loss of life.

- **Do not store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance.**

- **WHAT TO DO IF YOU SMELL GAS:**

- **Do not try to light any appliance.**
- **Do not touch any electrical switch; do not use any phone in your building.**
- **Immediately call your gas supplier from a neighbor's phone. Follow the gas supplier's instructions.**
- **If you cannot reach your gas supplier, call the fire department.**

- **INSTALLATION AND SERVICE MUST BE PERFORMED BY A QUALIFIED INSTALLER, SERVICE AGENCY OR THE GAS SUPPLIER.**



WARNING: Operation of this furnace without the properly installed, furnished vent system and vent cap could result in Carbon Monoxide (CO) poisoning and possible death. For your safety, this furnace and the vent system should be inspected at least annually by a qualified service technician.

This unit is for residential use only and is not approved for installation in greenhouses, or environments involving dusty, wet, corrosive, or explosive conditions. Such conditions will invalidate the warranty and may create unsafe conditions.

Installation, maintenance, service, troubleshooting and repairs must be performed by a qualified service agency. Mr./Mrs. Homeowner, DO NOT attempt any of these procedures yourself as this could expose you to property damage, personal injury or loss of life and will invalidate all warranties.

The appliance may be installed in an aftermarket permanently located, manufactured (mobile) home, where not prohibited by local codes. This appliance is only for use with the type of gas indicated on the rating plate. This appliance is not convertible for use with other gases, unless a certified kit is used.

The State of Massachusetts requires that installation and service of a gas appliance be performed by a plumber or gas fitter licensed in the Commonwealth of Massachusetts.

CONTENTS

Introduction……. 2
Specifications and Dimensions…… 2
Safety Rules……. 3
Clearances…… 4, 5
Location…… 6
Installation…… 6
Operation……. 7
Lighting Instructions…… 8, 9
Pilot Adjustment…….. 10
Removing Burner…….. 10
Proper Burner Flame…… 10
Optional Side Discharge Kit…… 14
Terminal Block Wiring…… 13
Manual Reset…… 13
Maintenance Instructions…….. 13
Trouble Shooting…….. 19,21
Parts Drawing……... 16
Parts List……... 17,18
Warranty…… 23

INTRODUCTION

Read these installation and operating instructions carefully before you install or attempt to use this Direct Vent Counterflow Wall Furnace. If you do not understand any part of the instructions, consult local authorities, a qualified installer, service technician or the gas supplier. **FAILURE TO READ OR UNDERSTAND THESE INSTRUCTIONS CAN RESULT IN MALFUNCTION, INEFFICIENT OPERATION, PROPERTY DAMAGE, SERIOUS INJURY OR DEATH**.

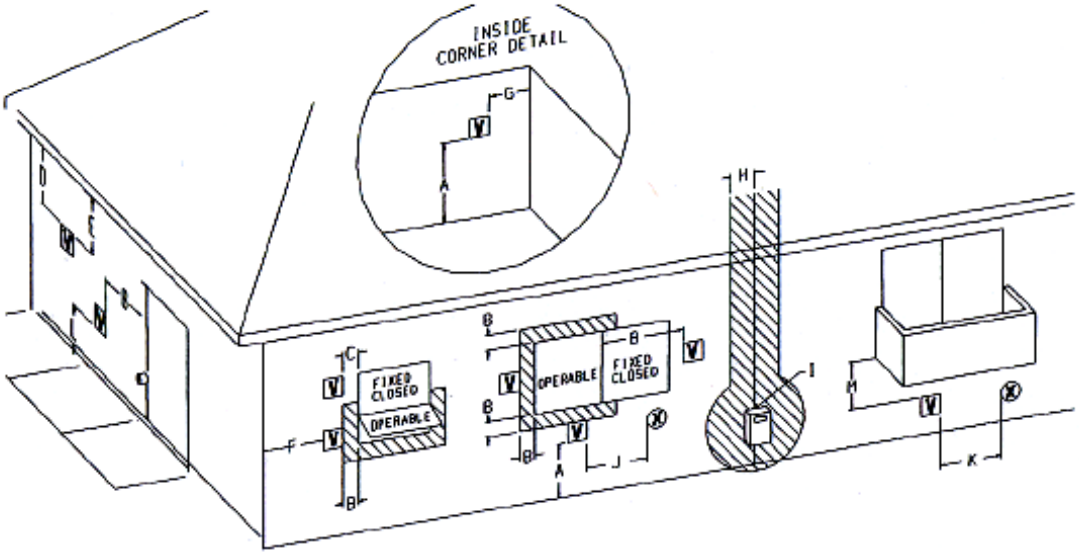
SPECIFICATIONS AND DIMENSIONS

Your Direct Vent Counterflow Wall Furnace is shipped in two cartons. One carton contains the furnace, thermostat, thermostat wire and insulated staples. The second carton will have the vent tube, air intake tube and vent cap assembly. After the furnace has been removed from the carton check the rating plate to verify that the model number is correct and that the wall furnace is equipped with the type gas you intend to use.

Model Number	Type Control	Type Gas	Btu/Hr. Input	Gas Inlet	Finished Dimensions	Blower Speed	Amps	CFM	Approx. Ship. Wt.
24 VOLT SYSTEM WITH LOW-BTU STANDING PILOT									
DVCF403C-H	24 Volt	Nat.	40,000	½"	14-5/16"Wx78-5/8"Hx11-3/4"D	1	1.95	320	130 Lbs.
DVCF404C-H	24 Volt	L.P.	40,000	½"	14-5/16"Wx78-5/8"Hx11-3/4"D	1	1.95	320	130 Lbs.
DVCF553C-H	24 Volt	Nat.	55,000	½"	14-5/16"Wx87-5/16"Hx11-3/4"D	2	3.05	440	144 Lbs.
DVCF554C-H	24 Volt	L.P.	55,000	½"	14-5/16"Wx87-5/16"Hx11-3/4"D	2	3.05	440	144 Lbs.
24 VOLT SYSTEM WITH INTERMITTENT IGNITION (I.I.D.)									
DVCF407C-H	24 Volt	Nat.	40,000	½"	14-5/16"Wx78-5/8"Hx11-3/4"D	1	2.2	320	130 Lbs.
DVCF408C-H	24 Volt	L.P.	40,000	½"	14-5/16"Wx78-5/8"Hx11-3/4"D	1	2.25	320	130 Lbs.
DVCF557C-H	24 Volt	Nat.	55,000	½"	14-5/16"Wx87-5/16"Hx11-3/4"D	2	3.3	440	144 Lbs.
DVCF558C-H	24 Volt	L.P.	55,000	½"	14-5/16"Wx87-5/16"Hx11-3/4"D	2	3.35	440	144 Lbs.

SAFETY RULES

1. This appliance must be installed in accordance with local codes, if any; if not, follow the National Fuel Gas Code, ANSI Z223.1/NFPA 54 or the Natural Gas and Propane Installation Code, CSA-B149.1.
2. Follow all applicable local codes and ordinances. If there are none, follow the latest edition of the National Fuel Gas Code, ANSI.Z223.1. A copy may be obtained from American Gas Association, 1515 Wilson Blvd., Arlington, Virginia 22209, or the National Fire Protection Association, Batterymarch Park, Quincy, MA. 02269. In Canada, see the current CAN1-B149 installation code, available from International Approval Services, 55 Scarsdale Road, Don Mills, Ontario, Canada M3B-2R3.
3. The appliance, when installed, must be electrically grounded in accordance with local codes or, in the absence of local codes, with the latest edition of National Electrical Code, ANSI/NFPA70. In Canada, see the current CSA C22.2 Canadian Electrical Code, available from International Approval Services, 178 Rexdale Boulevard, Etobicoke, Ontario, Canada M9W 1R3.
4. Do not install this furnace in a recreational vehicle or trailer.
5. Do not operate this furnace unless it is connected to the supplied vent system with vent cap in place. Do not attempt to extend vent pipes. 12 inches is maximum length.
6. Never use a match, candle, flame or other source of ignition to check for gas leaks. Use only soapy water or liquid detergent.
7. Before cleaning or servicing, turn off the gas and allow furnace to cool.
8. Do not operate furnace without grilles and front panel in place.
9. Due to high temperatures, locate furnace out of traffic and away from furniture and drapes.
10. Children and adults should be alerted to the hazard of high surface temperature and should be kept away to avoid burns or clothing ignition.
11. Young children should be carefully supervised when they are in the same room with the furnace.
12. Do not place clothing or other flammable material on or near the furnace.
13. Installation and repair should be done by a qualified service technician. The furnace should be inspected before use and at least annually by a professional service technician. More frequent cleaning may be required due to excessive lint from carpeting, bedding material, etc. It is imperative that control compartments, burners, and circulating air passageways of the furnace be kept clean.
14. Do not put anything around the furnace or vent cap that will obstruct the flow of combustion and ventilation air.
15. When installing the furnace allow adequate accessibility clearances for servicing and proper operation. (See Figure 1 – Page 5).
16. The wall furnace should be located near the center of the area to be heated for optimal heat distribution. If the wall furnace is installed directly on carpeting, tile or any combustible material other than wood flooring, the wall furnace shall be installed on a metal plate or wood panel secured to the floor, extending the full width and depth of the wall furnace. If a side register kit is to be installed, see Page 14.
17. Do not use this heater if any part has been under water. Immediately call a qualified service technician to inspect the heater and to replace any part of the control system which has been under water.
18. For your safety, this furnace is equipped with a manual reset auxiliary limit switch. In case of failure by the primary limit switch, this switch will shut the valve down completely before unsafe temperatures are reached. After a cool down period, switch must be manually reset. If outages persist, call a qualified service person.
19. Side discharge kit boots must not exceed 10 inches.
20. Locate the auxiliary limit switch and push in the red reset button. This will reset the switch in case it accidentally opened during shipping.



Vent Terminal Air Supply Inlet Area where terminal is not permitted

VENT TERMINAL CLEARANCES

REFERENCE LETTER TO DRAWING	CANADIAN INSTALLATIONS[1]	U.S. INSTALLATIONS[2]
A = Clearance above grade, veranda, porch, deck, or balcony	12 Inches (30 cm)	12 Inches (30 cm)
B = Clearance to window or door that may be opened	12 Inches (30 cm)	DVCF40__ 9 Inches (23 cm) DVCF55__ 12 Inches (30 cm)
C = Clearance to permanently closed window	12 Inches (30 cm)	DVCF40__ 9 Inches (23 cm) DVCF55__ 12 Inches (30 cm)
D = Vertical clearance to ventilated soffit located above the terminal within a horizontal distance of 2 Feet (61 cm) from the center line of the terminal	18 Inches (46 cm)	18 Inches (46 cm)
E = Clearance to unventilated soffit	24 Inches (61 cm)	24 Inches (61 cm)
F = Clearance to outside corner	12 Inches (30 cm)	12 Inches (30 cm)
G = Clearance to inside corner	12 Inches (30 cm)	12 Inches (30 cm)
H = Clearance to each side of center line extended above meter/ regulator assembly	3 Feet (91 cm) within a height 15 Feet (4.5m) above the meter/regulator assembly	Clearance in accordance with local installation codes and the requirements of the gas supplier
I = Clearance to service regulator vent outlet	3 Feet (91 cm)	Clearance in accordance with local installation codes and the requirements of the gas supplier
J = Clearance to nonmechanical air supply inlet to building or the combustion air inlet to any other appliance	12 Inches (30 cm)	DVCF40__ 9 Inches (23 cm) DVCF55__ 12 Inches (30 cm)
K = Clearance to a mechanical air supply inlet	6 Feet (1.83 m)	3 Feet (91 cm) above if within 10 Feet (3 m) horizontally
L = Clearance above paved sidewalk or paved driveway located on public property	7 Feet (2.13m) A vent shall not terminate directly above a sidewalk or paved driveway that is located between two single family dwellings and serves both dwellings.	Clearance in accordance with local installation codes and the requirements of the gas supplier.
M = Clearance under veranda, porch, deck, or balcony	12 Inches (30 cm) permitted only if veranda, porch, deck, or balcony is fully open on a minimum of two sides.	Clearance in accordance with local installation codes and the requirements of the gas supplier.

[1] In accordance with the current CSA-B149.1 Natural Gas and Propane Installation Code

[2] In accordance with the current ANSI Z223.1 / NFPA 54 National Fuel Gas Code

CLEARANCES

1. The minimum clearance to a side wall is 4". (See Fig. 1). NOTE: The unit may be recessed and rest directly against side studs and the inside surface of the rear wall.
2. The minimum clearance to the ceiling is 4". (See Figure 1).
3. The minimum clearance to the floor is 0". (See Figure 1).
4. The minimum clearance from the side of the vent cap to any protruding obstructions, or corners is 12". (See Figure 2b).
5. The minimum clearance from any window to the side of the vent cap is 9" for DVCF403, 404, 407 and 408C (See Figure 2), and 12" for DVCF553, 554, 557, and 558C (See Figure 2b).
6. The minimum clearance from any overhanging projection is 24" to top of vent cap (See Figure 2).
7. RESIDENTIAL GARAGE INSTALLATION: Gas utilization equipment in residential garages shall be installed so that all burners and burner ignition devices are located not less than 18 inches (46 cm) above the floor. Such equipment shall be located, or protected so it is not subject to damage by a moving vehicle. Use care in selecting a good location within the garage. DO NOT locate the appliance where heated air will be directed onto a nearby parked vehicle. Paint may discolor or rubber may harden and crack. DO NOT allow heated discharge air to blow directly onto open or closed containers of paint, gasoline or other liquids having flammable vapors.

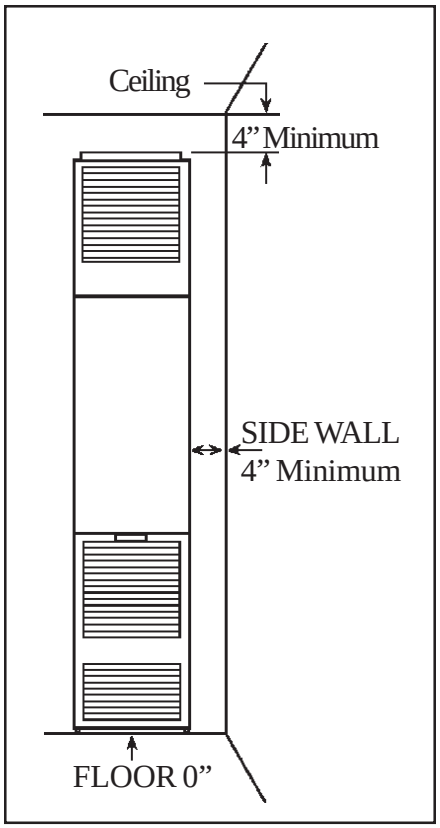


FIGURE 1

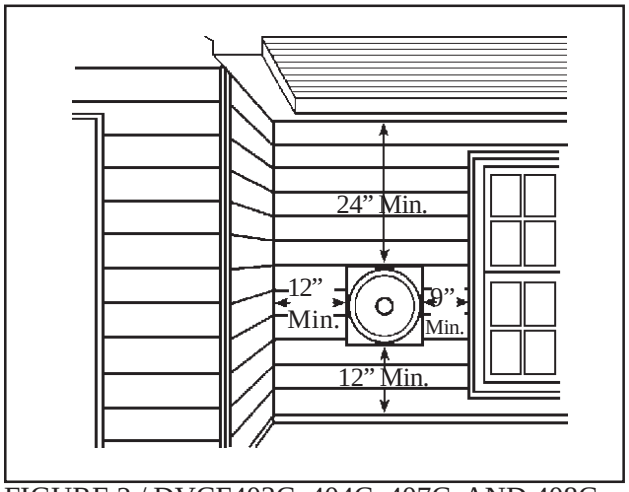


FIGURE 2 / DVCF403C, 404C, 407C, AND 408C

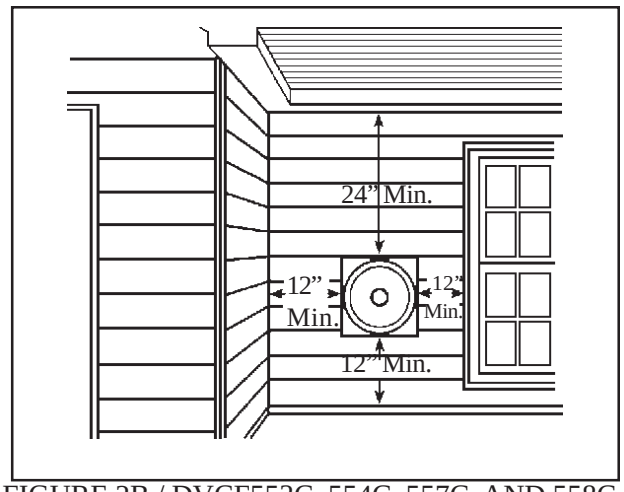


FIGURE 2B / DVCF553C, 554C, 557C, AND 558C

LOCATIONS

1. This furnace must be installed on an outside wall and vented to the outside. If possible, this wall should be on the side of the house that receives the least amount of wind since strong gusting winds could cause pilot outage.
2. For most efficient performance, locate furnace as centrally as possible in the area to be heated.
3. The furnace can be installed flush against a wall or recessed up to 10" maximum. For proper combustion, make sure unit is level front to back and side-to-side.
4. Do not install the furnace in a closet, alcove or small hallway where the furnace could be isolated from the space to be heated by closing a door.
5. Be sure the vent cap will have the proper clearances (See Figure 2).
6. Check inside the wall to make sure there are no obstacles such as water pipes, electric wiring, etc. which could interfere with the installation of the furnace or vent tubes.
7. Be sure to maintain adequate accessibility clearances for servicing and proper operation.
8. If the furnace is installed in a basement, a 12" clearance must be maintained between ground level and the bottom of the vent cap. Do not install furnace where vent cap will terminate in a window well or any other opening below ground level.

INSTALLATION

ELECTRICAL ROUGH-IN

For convenience, this furnace is equipped with a three-prong power cord located on the top left of heater. The 115V wiring should be brought in on the left side terminating in a receptacle box (not provided). Consult local codes or ordinances. (For Amps, see Page 2/Specifications and Dimensions).

ROUGH-IN GAS SUPPLY

Install a 1/2 inch diameter gas supply line. The gas line can enter the cabinet through the right side or bottom (See Figure 3). The gas line must have an individual manual shut off valve. Also, you must install a drip leg and provide a 1/8" N.P.T. plugged tapping, accessible for test gauge connection, immediately upstream of the gas supply connection to the furnace (See Figure 4).

The furnace and its individual shut off valve must be disconnected from the gas supply piping system during any pressure testing of that system at test pressures in excess of ½ psig (3.5kPa). The furnace must be isolated from the gas supply piping system by closing its individual manual shut off valve during any pressure testing of the gas supply piping system at test pressures equal to or less than ½ psig (3.5kPa).

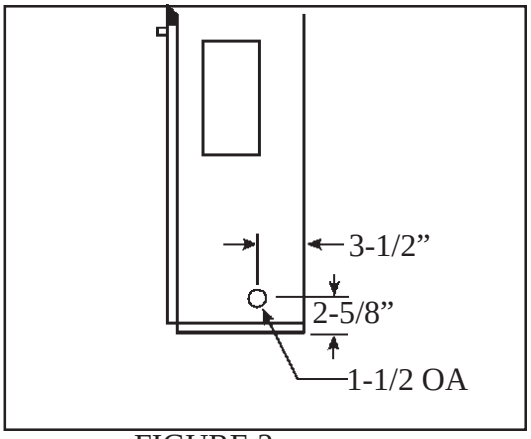


FIGURE 3

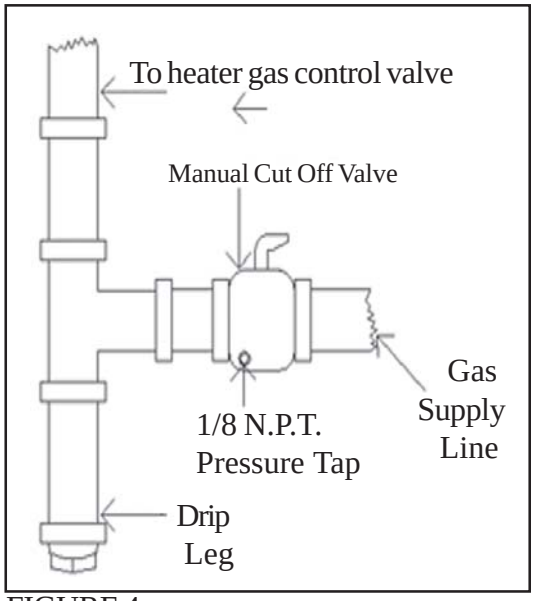


FIGURE 4

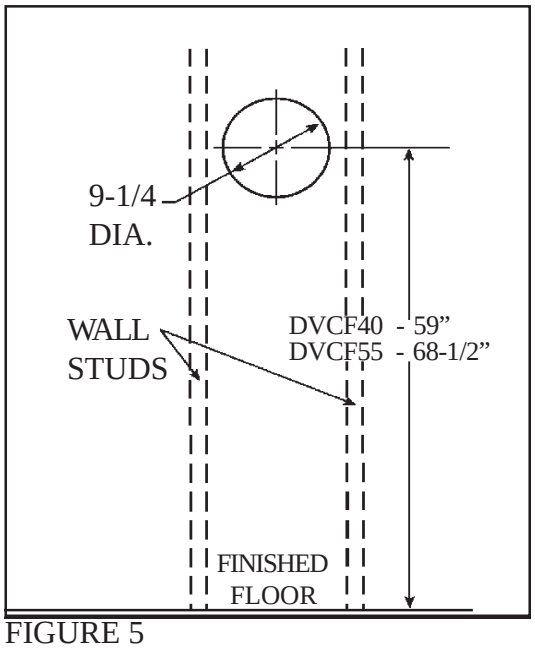


FIGURE 5

LOCATE VENT OPENING

After the location of the heater has been determined, the opening for the vent pipe should be cut. If the heater is to be recessed, cut out opening for heater between studs on the interior wall and cut out the floor plate between the studs, so heater will set flat on floor as all dimensions are given from a finished floor. The height of the cut out for a 40,000 BTU model is 78-5/8", for the 55,000 models the cut out height is 87-5/16". NOTE: This dimension may be increased to allow more room for installation and making the wiring connection, then refinished.

Next, cut out a 9-1/4" opening in exterior wall for the vent tubes to pass through. The center of opening for the 40,000 BTU furnace is 59", the center for opening for 55,000 BTU furnace is 68-1/2". See Figure 5, on Page 6.

If the heater is to be surfaced mounted, cut out 9-1/4" opening through the interior and exterior wall. The center of cut out will be 59" for 40,000 BTU and 68-1/2" for 55,000 BTU models. Be sure both cutouts are level with each other.

INSTALLING THE FURNACE

The vent system supplied with this furnace will accommodate walls ¾" (when recessed) up to 12" thick. Use only the exhaust tube, air intake tube and vent cap supplied with heater. Do not attempt to lengthen the exhaust or air intake tubes, this could cause an imbalance in the heater resulting in poor performance and pilot outage (See Figure 6).

Measure exact distance "X" between surface on which back of cabinet will rest (inside of recessed cavity or face of wall when freestanding) and the outside wall surface (see Figure 6).

Inlet Air Tube "A" – Measuring from gasketed surface, mark and cut pipe same as dimension "X". Remove any burrs.

Vent Exhaust Tube "B" – Measuring from gasketed surface, mark and cut pipe 1-3/4" greater than dimension "X". Remove any burrs.

Fasten vent exhaust tube "B" to heat exchanger collar and Inlet Air Tube "A" to flange on back of furnace using 16 # 3/8 screws ("C") provided. Be sure gaskets are in place and not damaged. Anytime the vent pipes are removed check and replace gaskets (if necessary). Failure to replace missing or damaged gaskets may expose homeowner to life threatening conditions.

Secure furnace in place using 2 holes provided in bottom of casing. NOTE: Make sure both tubes are centered in cut out. Slide the vent cap onto the pipes extending from the back of the furnace. A rotating or twisting motion will ease this installation. Secure vent cap and vent cap spacer plate to wall causing the vent tubes to have a slight downward pitch. This will prevent water from entering. Anchors (not provided) may be required. Caulk around vent cap spacer plate with caulking provided. NOTE: Some framing may be necessary to provide a flat surface against the vent cap spacer plate and to prevent rain from entering the wall opening.

GAS CONNECTION

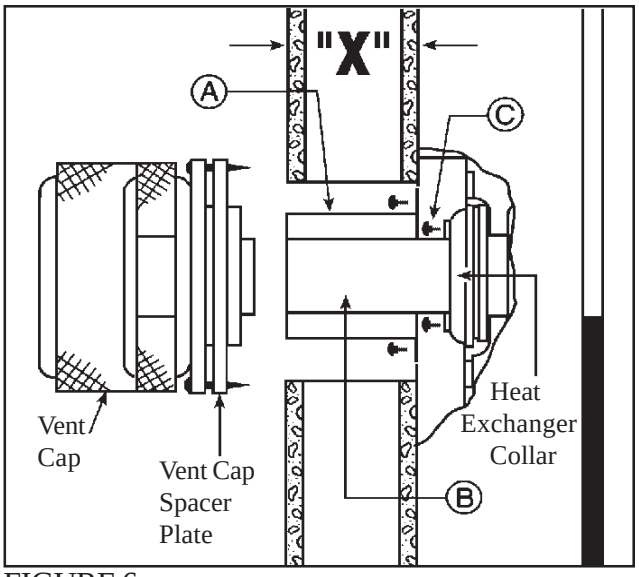


FIGURE 6

Make the gas connection between the manual shut off valve and the furnace gas control valve with approved ½" connectors. Compounds used on threaded joints of gas piping shall be approved for use with L.P. gas. The gas lines must be checked for leaks by the installer with soapy water or liquid detergent, never use an open flame. If connections are not exposed, a pressure test must be run. Be sure to disconnect the gas supply line from the appliance valve before pressure testing. The manifold pressure is pre-set at the factory and should be 3.5" w.c. for Natural Gas and 10" w.c. for L.P. Gas. The minimum inlet pressure for Natural Gas is 4.5" w.c. and 11" w.c. for L.P. Gas, "for purpose of input adjustment". The maximum inlet pressure should never exceed 7.0" w.c. on Natural Gas or 14" w.c. on L.P. Gas.

THERMOSTAT INSTALLATION

Follow the instructions included with the thermostat. Select a location for the thermostat on an inside wall approximately 5 feet above the floor where it won't be affected by heat or cold sources such as direct sunlight, televisions, fireplaces, hidden hot or cold water pipes, drafts, etc., and a minimum of 4' from the heater. The thermostat must never be placed in an adjacent room. Connect thermostat wires to thermostat and mount to wall. Run wire to furnace and make connections to thermostat wires coming out of top of furnace. Use insulated staples (provided) to secure wire to wall.

OPERATION

This heater is equipped with a slow opening gas control. On a call for heat the gas valve does not snap-open to full manifold pressure, but opens with a gradual increase to normal manifold pressure. The time lapse from the call for heat to normal operating pressure is two to five seconds. The slow open feature assures a safe, less noisy ignition.

After the heat exchanger has warmed sufficiently, the fan will automatically come on to efficiently transfer the heat into the room. NOTE: The 40,000 BTU models have a one speed and the 55,000 BTU models have a two-speed automatic fan.

LIGHTING INSTRUCTIONS: DVCF403C-H/404C-H, DVCF553C-H/554C-H

FOR YOUR SAFETY READ BEFORE LIGHTING

WARNING: If you do not follow these instructions exactly, a fire or explosion may result causing property damage, personal injury or loss of life.

A. This appliance has a pilot which must be lighted by hand. When lighting the pilot, follow these instructions exactly.

B. BEFORE LIGHTING, smell all around the appliance area for gas. Be sure to smell next to the floor because some gas is heavier than air and will settle on the floor.

WHAT TO DO IF YOU SMELL GAS:

- Do not try to light any appliance.
- Do not touch any electric switch, do not use any phone in your building.
- Immediately call your gas supplier from a neighbor's phone. Follow the gas supplier's instructions.
- If you cannot reach your gas supplier, call the fire department.

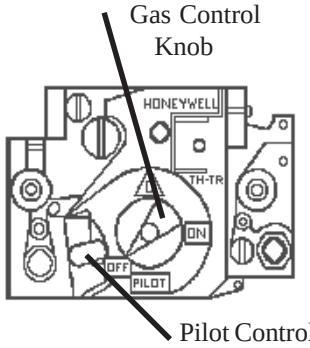
C. Use only your hand to push in or turn the gas control knob. Never use tools. If the knob will not push in or turn by hand, don't try to repair it, call a qualified service technician. Force or attempted repair may result in a fire or explosion.

D. Do not use this appliance if any part has been under water. Immediately call a qualified service technician to inspect the appliance and to replace any part of the control system and any gas control which has been under water.

PN 91211 02/05

LIGHTING INSTRUCTIONS

1. STOP! Read the information on the safety label.
2. Set thermostat to lowest setting.
3. Turn off all electric power to the appliance.
4. Remove lower front panel.
5. Push in gas control knob slightly and turn clcockwise ↷ to "OFF".



NOTE: Knob can not be turned from "PILOT" to "OFF" unless knob is pushed in slightly. Do not force.

6. Wait five (5) minutes to clear out any gas. Then smell for gas, including near the floor. If you smell gas, STOP! Follow "B" in the information on the safety label. If you don't smell gas, go to the next step.
7. Open sight glass cover.
8. Locate red piezo ignitor button on side of gas control. Locate pilot behind sight glass. (Follow metal pilot tube from gas control).
9. Turn gas control knob counterclockwise ↶ to "PILOT".

10. Push in pilot control knob and hold in. Immediately begin a series of pushing and releasing the red piezo ignitor button, while observing the pilot through the sight glass. Continue to spark until pilot is lit. Continue to hold the pilot control knob in for about one (1) minute after the pilot is lit. Release the pilot control knob and it will pop back up. Pilot should remain lit. If pilot goes out, repeat steps 4 thru 9.
    - If knob does not pop up when released, STOP and immediately call your service technician or gas supplier.
    - If the pilot will not stay lit after several tries, turn the gas control knob to "OFF" and call your service technician or gas supplier.
11. Close sight glass cover.
12. Turn gas control knob counterclockwise ↶ to "ON".
13. Replace lower front panel.
14. Turn on all electric to the appliance.
15. Set thermostat to desired setting.

PN 91211 02/05

TO TURN OFF GAS TO APPLIANCE

1. Turn thermostat to it's lowest setting.
2. Turn off all electric power to the appliance if service is to be performed.
3. Remove lower front panel.
4. Push in gas control knob slightly and turn clockwise ↷ to "OFF". Do not force.
5. Replace lower front panel.

PN 91211 02/05

LIGHTING INSTRUCTIONS: DVCF407C-H/408C-H, DVCF557C-H/558C-H

FOR YOUR SAFETY READ BEFORE LIGHTING

WARNING: If you do not follow these instructions exactly, a fire or explosion may result causing property damage, personal injury or loss of life.

A. This appliance is equipped with an ignition device which automatically lights the pilot. Do not try to light the pilot by hand.

B. BEFORE OPERATING, smell all around the appliance area for gas. Be sure to smell next to the floor because some gas is heavier than air and will settle on the floor.

WHAT TO DO IF YOU SMELL GAS:

- Do not try to light any appliance.
- Do not touch any electric switch; do not use any phone in your building.
- Immediately call your gas supplier from a neighbor's phone. Follow the gas supplier's instructions.
- If you cannot reach your gas supplier, call the fire department.

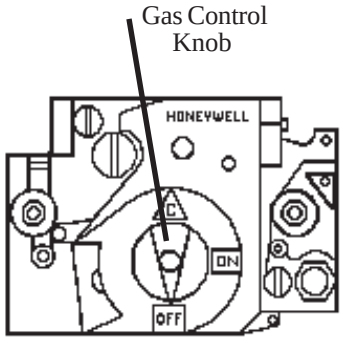
C. Use only your hand to push in or turn the gas control knob. Never use tools. If the knob will not push in or turn by hand, don't try to repair it, call a qualified service technician. Force or attempted repair may result in a fire or explosion.

D. Do not use this appliance if any part has been under water. Immediately call a qualified service technician to inspect the appliance and to replace any part of the control system and any gas control which has been under water.

PN 91214 02/05

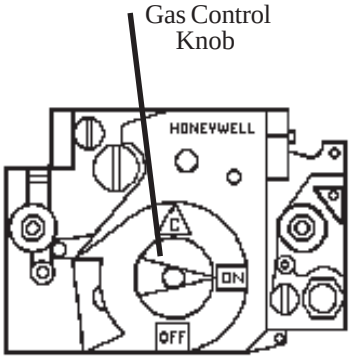
LIGHTING INSTRUCTIONS

1. STOP! Read the information on the safety label.
2. Set thermostat to lowest setting.
3. Turn off all electric power to the appliance.
4. This appliance is equipped with an ignition device which automatically lights the pilot. Do not try to light the pilot by hand.
5. Remove lower front panel.
6. Push in gas control knob slightly and turn clockwise to "OFF".



NOTE: Knob can not be turned to "OFF" unless knob is pushed in slightly. Do not force.

7. Wait five (5) minutes to clear out any gas. Then smell for gas, including near the floor. If you smell gas, STOP! Follow "B" in the information on the safety label. If you don't smell gas, go to the next step.
8. Turn gas control knob counterclockwise to "ON".



9. Replace lower front panel.
10. Turn on all electric power to the appliance.
11. Set thermostat to desired setting.
12. If the appliance will not operate, follow the instructions "TO TURN OFF GAS TO APPLIANCE" and call your service technician or gas supplier.

PN 91214 02/05

TO TURN OFF GAS TO APPLIANCE

1. Turn thermostat to it's lowest setting.
2. Turn off all electric power to the appliance if service is to be performed.
3. Remove lower front panel.
4. Push in gas control knob slightly and turn clockwise to "OFF". Do not force.
5. Replace lower front panel.

PN 91214 02/05

PILOT ADJUSTMENT

Locate the pilot adjustment screw on the valve. The pilot flame should surround at least the top 3/8" of the powerpile (pilot generator) or flame sensor (see Figure 7). The pilot is unregulated so it will be operating at inlet line pressure (Max. 7" w.c. for Natural Gas and 11" w.c. for Propane). To decrease the pilot flame, turn the screw clockwise (approximately six full turns to bottom of pilot light channel) until you produce sufficient flame at the minimum noise level.

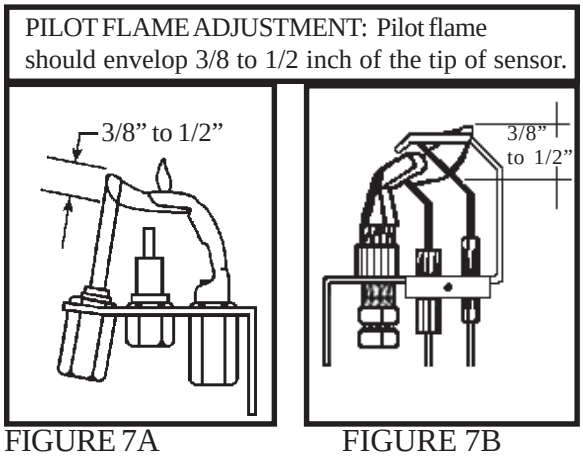


FIGURE 7A STANDING PILOT

FIGURE 7B I.I.D. PILOT

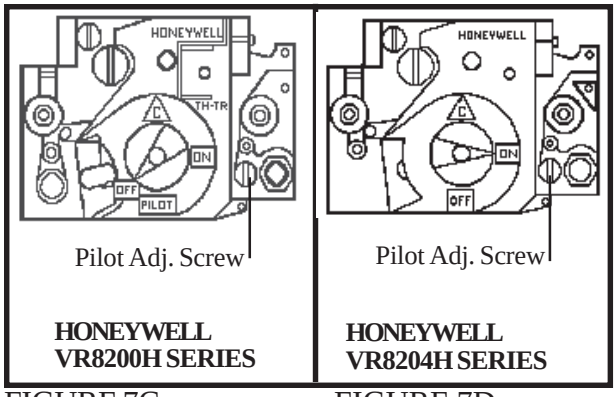


FIGURE 7C STANDING PILOT

FIGURE 7D I.I.D. PILOT

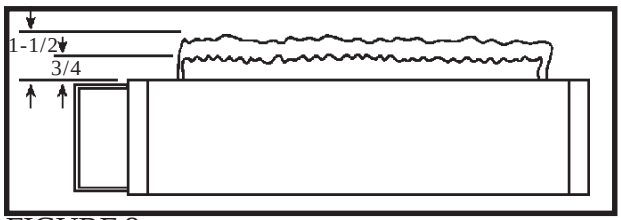


FIGURE 8

TO REMOVE MAIN BURNER FOR INSPECTION AND CLEANING

1. Turn thermostat to lowest setting and allow furnace to cool.
2. Turn off all electric power to furnace.
3. Remove lower grille.
4. Disconnect gas supply to valve.
5. Disconnect wires from gas valve.
6. Remove 15 screws holding burner door to burner box. Pull door forward to remove complete burner, gas valve assembly.
7. After inspecting and cleaning, place burner assembly back into burner box and tighten 15 screws. NOTE: Be sure door gasket is not damaged and will effect a proper seal or pilot outage will occur.
8. Connect wires back to valve.
9. Connect gas supply back to valve.
10. Turn on electric to furnace.
11. Follow lighting instructions, and replace lower grille.

It is recommended that the furnace and all components be inspected at least annually by a qualified service technician. This should include the burner, pilot, heat exchanger, and vent system. Be sure that the flow of combustion and ventilation air is not obstructed.

IMPORTANT: Keep burner and control compartment clean. Vacuum control compartment at the start of the heating season and as often as needed.

PROPER BURNER FLAME

The burner flame may be observed by raising the sight glass cover. A proper flame will have a dark blue inner mantle that sits right on top of the burners with a lighter blue outer mantle rising above the burner (See Figure 8). There may be some yellow where the pilot flame and burner flame meet. There is no primary air adjustment on the burner, and proper flame is assured since the correct manifold pressure and orificing has been done at the factory. NOTE: It is advised that the burner flames be checked at least twice during the heating season for any changes in burner flame characteristics. The appliance area must be kept clear and free from combustible materials, gasoline, and other flammable vapors and liquids. This heater comes from the factory with the proper burner orifice for elevations up to 2,000 feet. Heaters installed above 2,000 feet must be derated 4% for every 1,000 feet. For the proper orifice size, find the Model Number and elevation on the orifice chart. Replace burner orifice. Orifice change must be completed by a qualified installer or service technician.

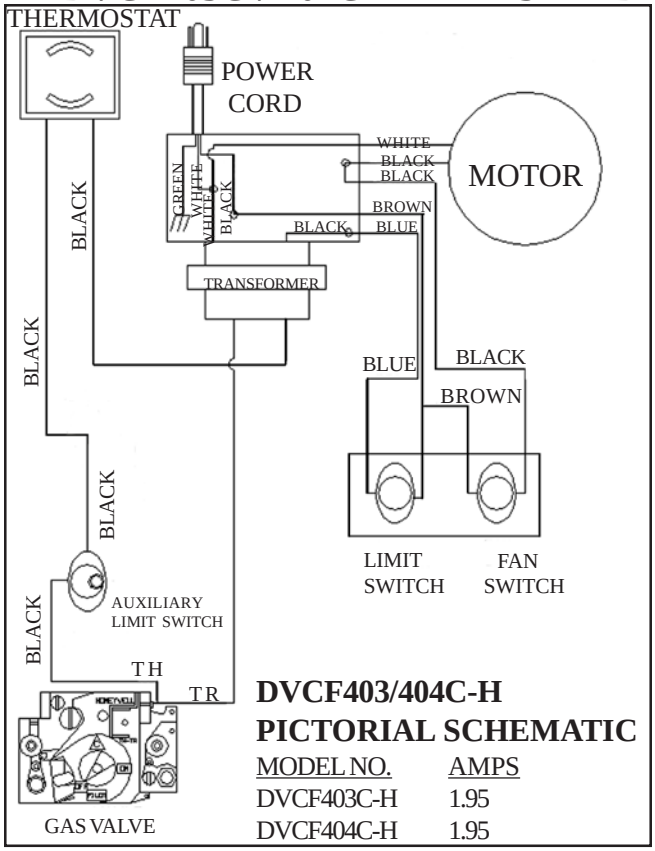
NATURAL GAS

MODEL NUMBER	0 to 2,000'	2,000 - 4,000'	4,000 - 6,000'	6,000 - 8,000'	8,000 – 10,000'
DVCF403C	32	34	35	36	40
DVCF407C	32	34	35	36	40
DVCF553C	3.6m	29	30	30	31
DVCF557C	3.6m	29	30	30	31
ORDER KIT #49840 2287-1 HIGH ALTITUDE KIT					

L.P. GAS

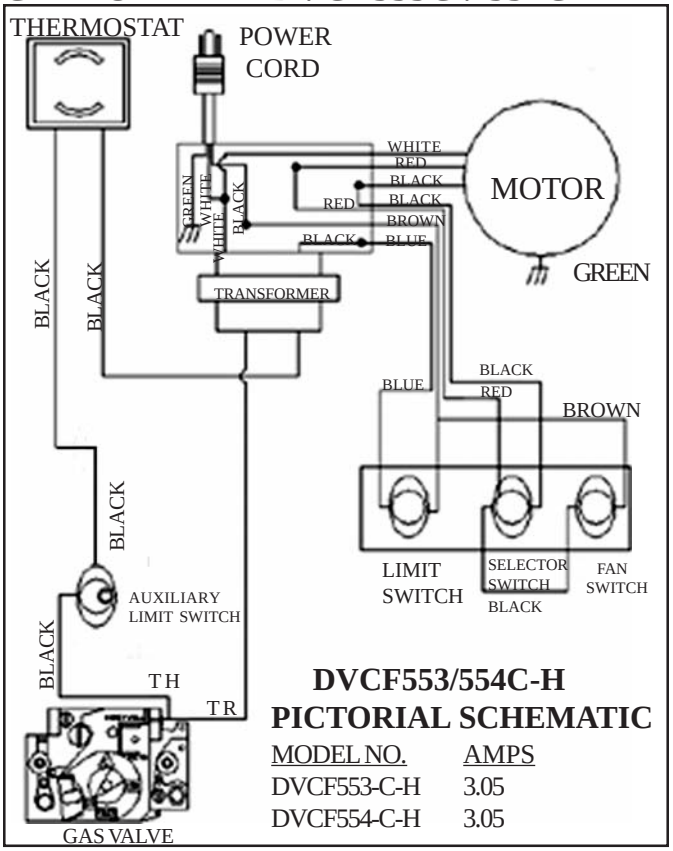
MODEL NUMBER	0 to 2,000'	2,000 - 4,000'	4,000 - 6,000'	6,000 - 8,000'	8,000 – 10,000'
DVCF404C	49	50	51	52	52
DVCF408C	49	50	51	52	52
DVCF554C	44	45	47	48	49
DVCF558C	44	45	47	48	49
ORDER KIT #49840 2287-1 HIGH ALTITUDE KIT					

DVCF403C / 404C-H STANDING PILOT DVCF553C / 554C-H



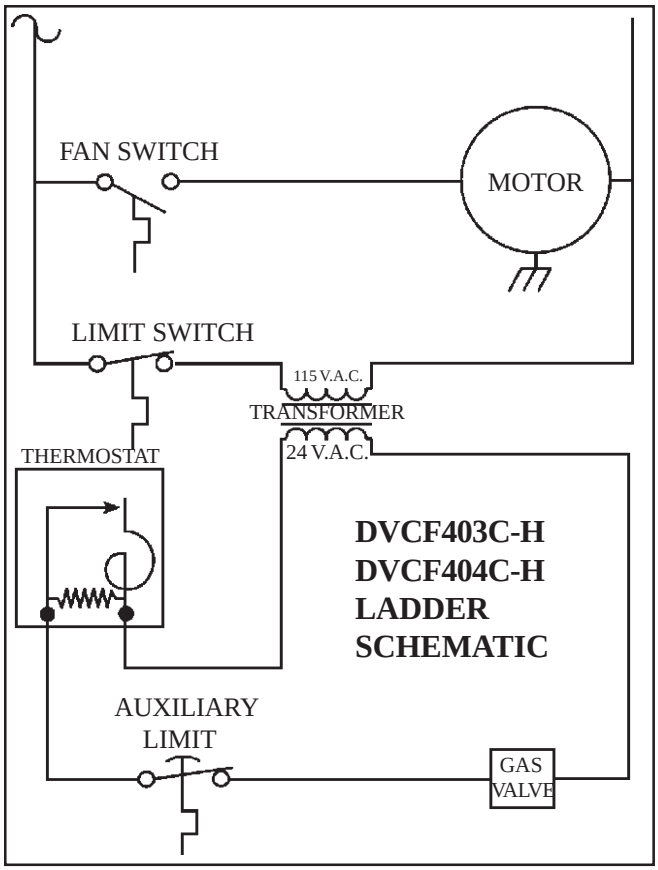
DVCF403/404C-H PICTORIAL SCHEMATIC

MODEL NO.	AMPS
DVCF403C-H	1.95
DVCF404C-H	1.95

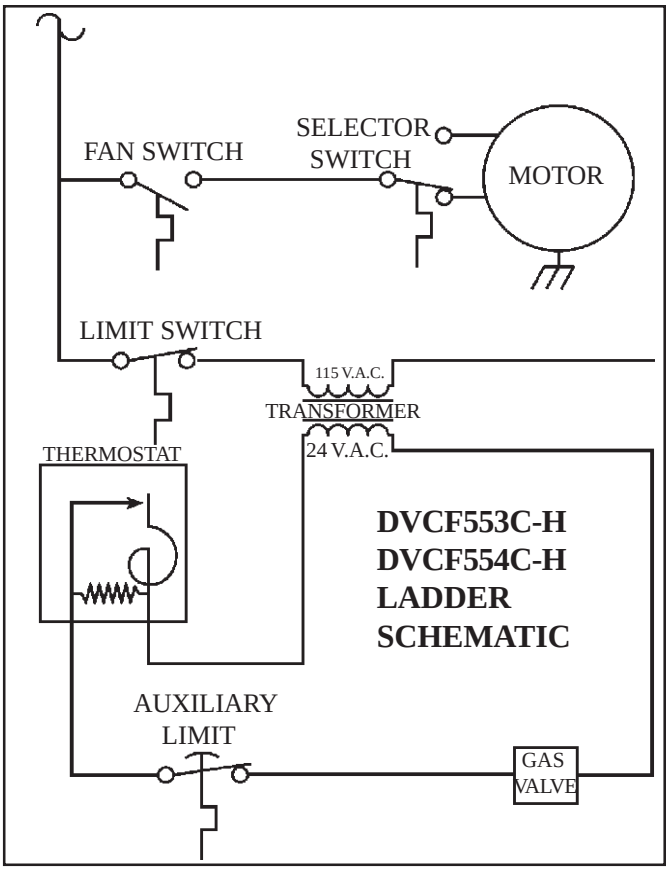


DVCF553/554C-H PICTORIAL SCHEMATIC

MODEL NO.	AMPS
DVCF553-C-H	3.05
DVCF554-C-H	3.05

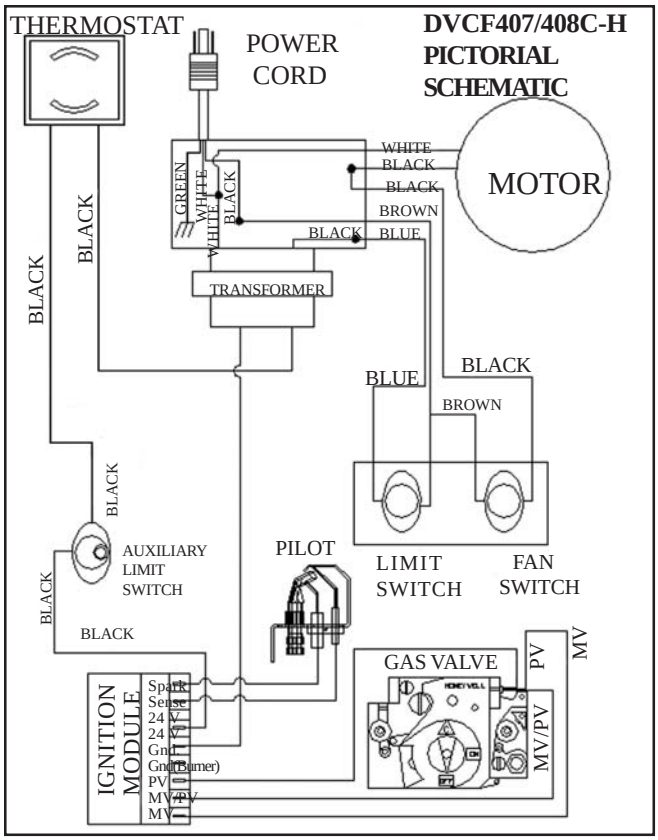


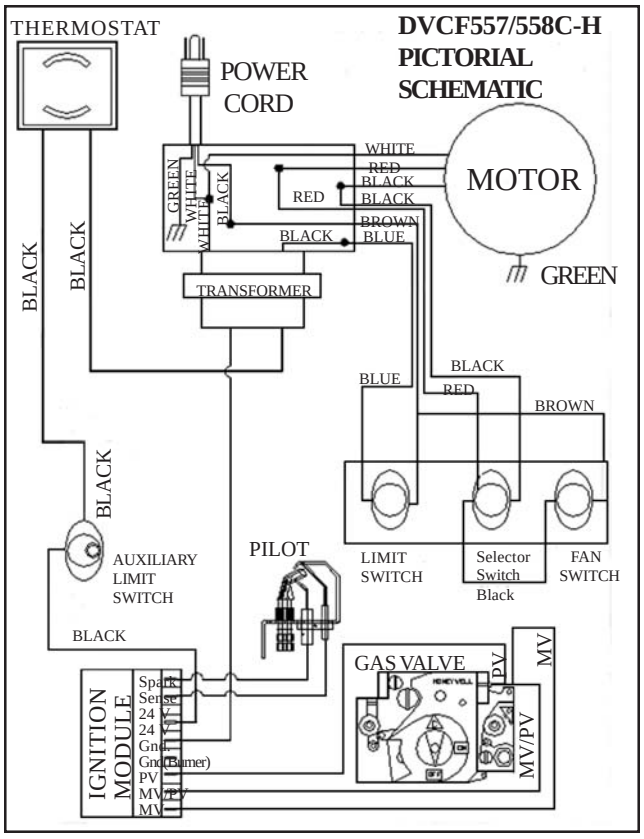
DVCF403C-H DVCF404C-H LADDER SCHEMATIC

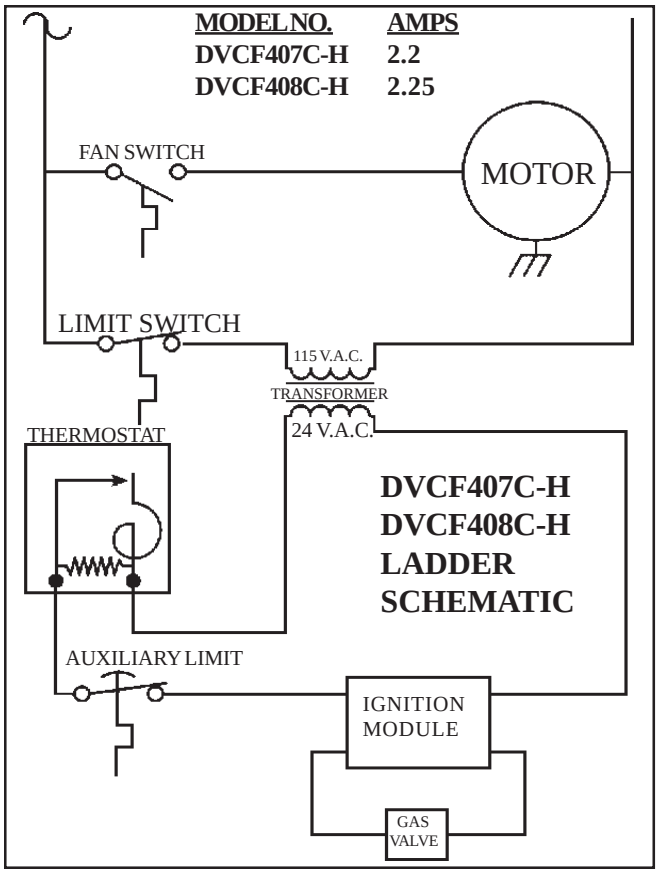


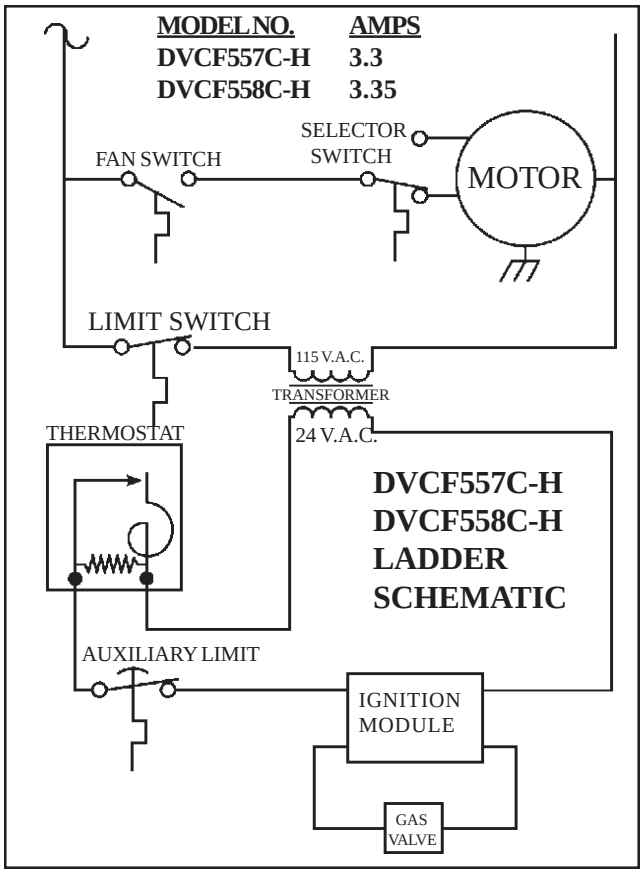
DVCF553C-H DVCF554C-H LADDER SCHEMATIC

DVCF407C-H, DVCF408C-H I.I.D. DVCF557C-H, DVCF558C-H



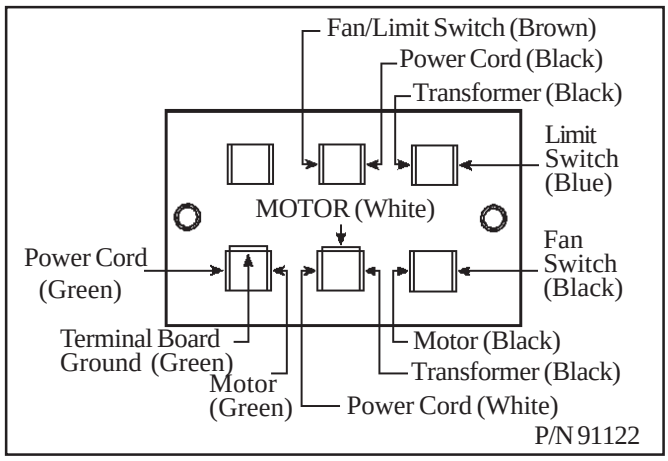




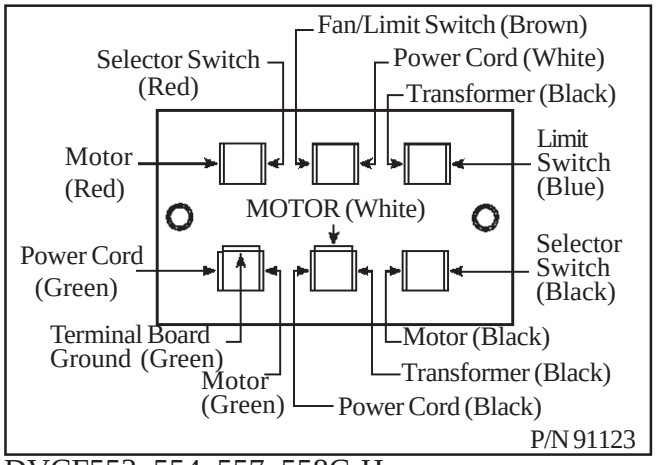


CAUTION: Label all wires prior to disconnection when servicing controls. Wiring errors can cause improper and dangerous operation. Verify proper operation after servicing.

TERMINAL BLOCK WIRING DIAGRAM



DVCF403, 404, 407, 408C-H



DVCF553, 554, 557, 558C-H

MANUAL RESET SWITCH

For your safety this furnace is equipped with a manual reset limit switch. In case of failure by the primary limit switch, this switch will shut the valve down completely before unsafe temperatures are reached. After a cool down period, switch must be manually reset. If outages persist, call a qualified service person.

MAINTENANCE INSTRUCTION

For proper and safe operation, keep furnace and furnace area clean. At regular intervals turn control valve off, let cool and clean inside control compartment. To clean cabinet, use only a damp cloth. Do not use any kind of solvent or cleaning fluid that could leave a residue or invisible coating that would burn or give off fumes when furnace is turned on.

Have the furnace checked, cleaned, and repaired by a qualified service technician, including the vent system, pilot and burner operation prior to use each year.

The bearings of the fan motor should be oiled every twelve (12) months with S.A.E. 20 oil. (See Figure 10).

Follow a regular service and maintenance schedule for safe and efficient operation.

Examine the venting system as a routine part of the safety performance check on an annual basis.

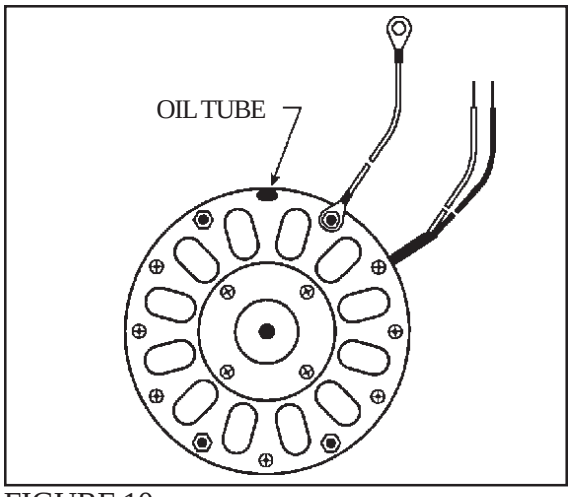


FIGURE 10

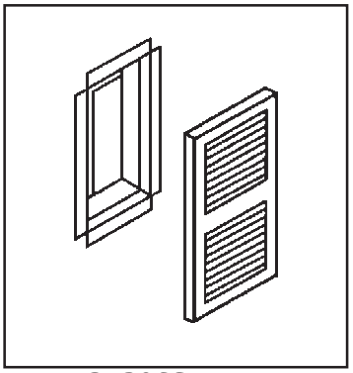
WARNING: This is a gas-fired appliance. Keep the area clear of gasoline and other flammaable vapors and liquids. All combustible material must be kept clear of this area to avoid fire or explosion.

OPTIONAL SIDE DISCHARGE KITS

This kit must be installed by a qualified installer or service technician.

SIDE DISCHARGE ON CASING

1. Use Optional Kit No. 306SR-A.
2. Cut out and remove embossed area on casing side.
3. Remove knockout from inner liner.
4. Place 1-1/2" boot from kit through opening, matching flanges of boot to knockout on inner liner.
5. Mark screw holes and remove boot.
6. Drill holes with a 1/8" drill.
7. Attach inner boot with screws provided.
8. Place grille into position, drill holes into casing, and attach with screws provided.



KIT NO. 306SR
SIDE REGISTER - FLUSH

SIDE DISCHARGE (With Extension Boot)

NOTE: Maximum boot length is 10 inches.

1. Use Optional Kit No. 30SRB-A.
2. Cut opening in drywall as shown in Fig. 9.
3. Position plaster ground as shown in Figure 9. (Optional).
4. Cut out and remove embossed section on casing side.
5. Remove knockout on inner liner.
6. Put heater into position.
7. Place inner boot into position, mark and cut boot flush with wall. Place outer boot into position, mark and cut boot flush with wall.
8. Place boot trim into position, slide inner boot through wall from adjacent room and attach to inner liner. Slide outer boot through wall from adjacent room and attach to casing side.
9. Place grill in position and secure to wall.

ROUGH-INS FOR SIDE DISCHARGE

Install plaster grounds as shown in Figure 9. NOTE: When side discharge Kit No. 30SRB is being used, furnace should be set exactly 4" from side wall.

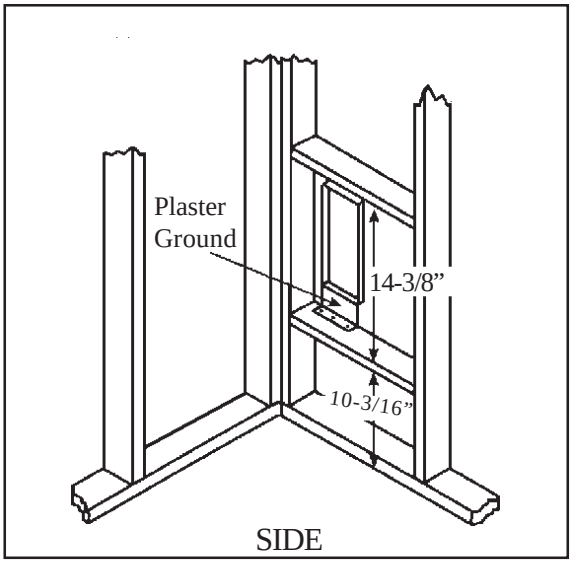
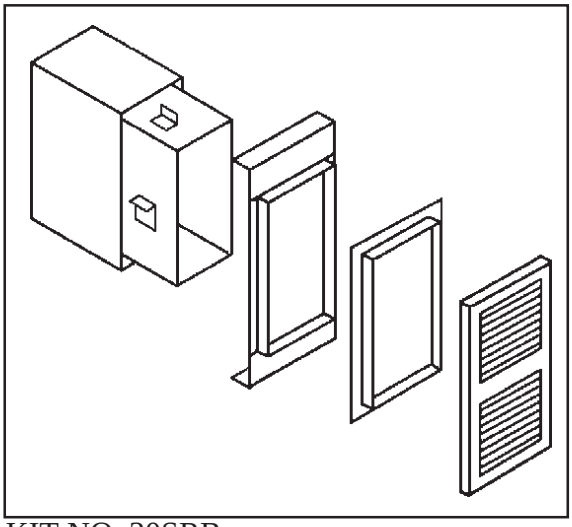


FIGURE 9



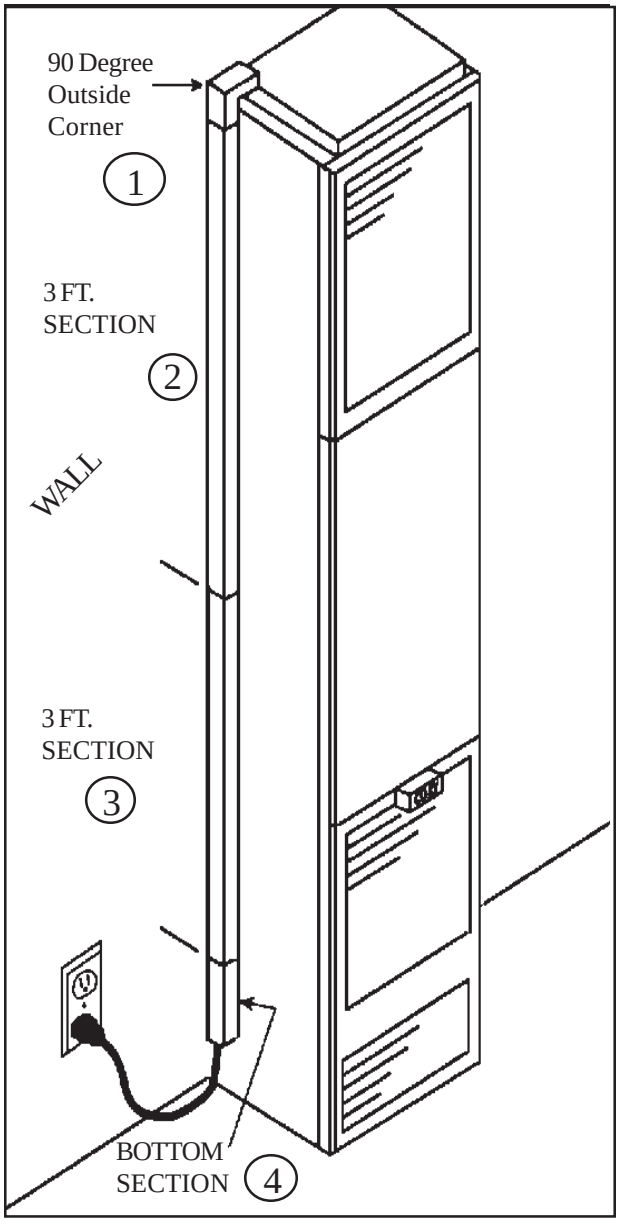
KIT NO. 30SRB
SIDE REGISTER W/BOOT

14-PEK KIT INSTRUCTIONS

(14' PLUG EXTENSION KIT)

This kit must be installed by a qualified installer or service technician.

FOR NON-RECESSED INSTALLATIONS ONLY



MODEL NO.	LENGTH OF BOTTOM SECTION (REF. 4) PLASTIC RACEWAY
DVCF40	5-5/16 Inches
DVCF55	14 Inches

NOTE: Above lengths terminate approximately 2 inches above floor.

UNITS WITH TERMINAL BOARD

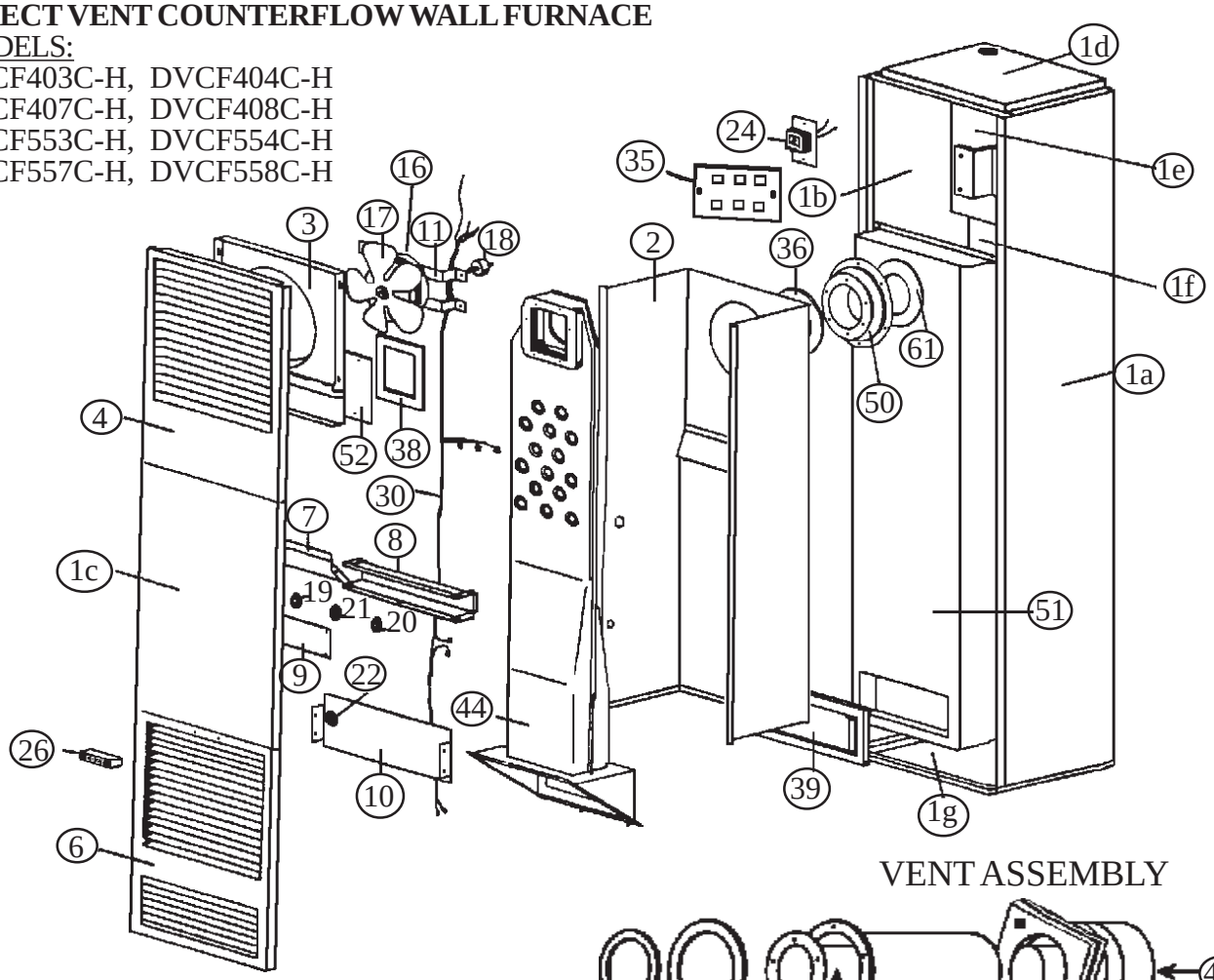
STEP #

1. Turn heater off following Section 3 in "Lighting Instructions" and allow to cool.
2. Turn off all electricity to heater.
3. Remove top louver assembly, fan shroud and fan blade.
4. Loosen two screws on romex connector.
5. Remove junction box cover plate.
6. Disconnect three power cord terminals and pull power cord out of top of heater.
7. Insert power cord provided in kit through romex connector and plug onto terminal board following wiring diagram found in lighting and operating instructions.
8. Tighten two screws on romex connector.
9. Replace junction box cover plate.
10. Replace fan blade, fan shroud and top louver assembly.
11. Snap 90 degree outside corner (Ref. 1) onto 3 foot section (Ref. 2) plastic raceway. Insert power cord and remove blue backing from adhesive strip on raceway and apply to side of heater.
12. Insert power cord into second 3-foot section of raceway (Ref. 3) and remove blue backing and apply to side of heater, butting up against bottom of other section.
13. Cut 14-inch long bottom section to required length (see chart), insert power cord, remove backing and apply to side of heater.
14. Plug power cord into wall receptacle.
15. Light the heater following lighting instructions.

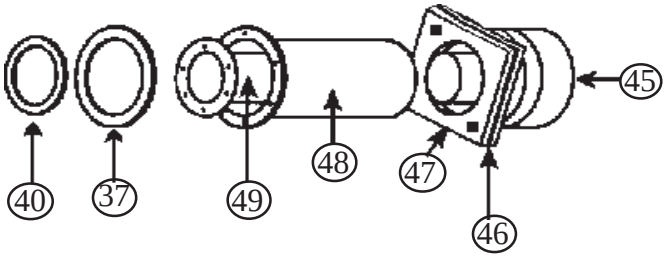
DIRECT VENT COUNTERFLOW WALL FURNACE

MODELS:

DVCF403C-H, DVCF404C-H
DVCF407C-H, DVCF408C-H
DVCF553C-H, DVCF554C-H
DVCF557C-H, DVCF558C-H

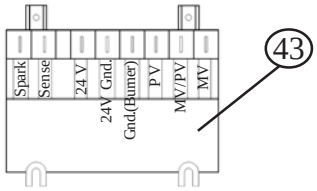


VENT ASSEMBLY

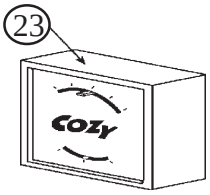


ATTN: CONTRACTORS AND SERVICE TECHNICIANS, we only sell parts through our wholesalers, but the prices listed are for your convenience. For prompt parts service, contact the wholesaler from which you purchased your Cozy heater. NOTE: Parts & schematic drawings on current models are shown at **www.cozyheaters.com**.

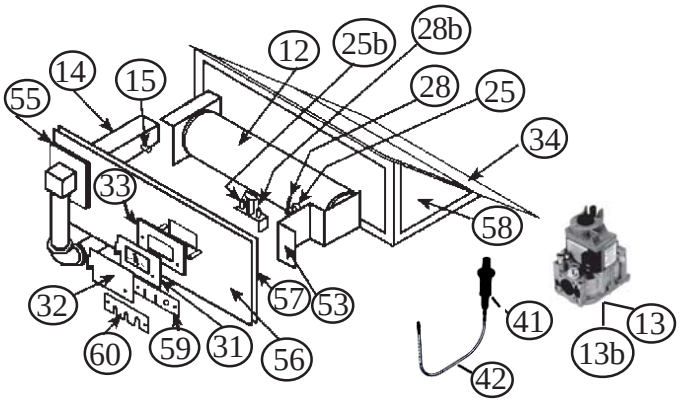
I.I.D. CONTROL MODULE
HONEYWELL



THERMOSTAT



BURNER ASSEMBLY
DVCF40C-H, DVCF55C-H, SERIES



USE ONLY FACTORY SUPPLIED PARTS

Prices and specifications subject to change without notice. All prices are F.O.B. factory.

APRIL 2013
REV. 04/2013

HOW TO PROPERLY ORDER PARTS

In addition to part description and part number, please give model number, serial number, and type of gas used.

	NAT.	DVCF403C-H		DVCF407C-H		DVCF553C-H		DVCF557C-H	
MODEL NUMBER	**L.P.**	**DVCF404C-H**		**DVCF408C-H**		**DVCF554C-H**		**DVCF558C-H**	
	REF.	PART	LIST	PART	LIST	PART	LIST	PART	LIST
PART DESCRIPTION	NO.	NO.	PRICE	NO.	PRICE	NO.	PRICE	NO.	PRICE
Casing Side, Right	1a	34065	$ 68.80	34065	$ 68.80	34560	$ 75.30	34560	$ 75.30
Casing Side, Left	1b	34055	$ 68.80	34055	$ 68.80	34550	$ 75.30	34550	$ 75.30
Center Front Panel Assembly	1c	34104	$ 34.20	34104	$ 34.20	30534	$ 35.30	30534	$ 35.30
Top Assembly	1d	34050	$ 13.00	34050	$ 13.00	34050	$ 13.00	34050	$ 13.00
Upper Back Assembly	1e	34080	$ 52.50	34080	$ 52.50	34080	$ 52.50	34080	$ 52.50
Lower Back Assembly	1f	34090	$ 44.80	34090	$ 44.80	34575	$ 49.50	34575	$ 49.50
Bottom Assembly	1g	34070	$ 19.70	34070	$ 19.70	34070	$ 19.70	34070	$ 19.70
Casing Mounting Brackets	N/A	*30260	$ 1.60	*30260	$ 1.60	*30260	$ 1.60	*30260	$ 1.60
Liner Assembly	2	34115	$ 99.80	34115	$ 99.80	34600	$ 107.50	34600	$ 107.50
Fan Shroud Assembly	3	34140	$ 29.20	34140	$ 29.20	34140	$ 29.20	34140	$ 29.20
Top Louver	4	34100	$ 20.00	34100	$ 20.00	34590	$ 21.70	34590	$ 21.70
Bottom Louver Assembly	6	30100	$ 38.90	30100	$ 38.90	30100	$ 38.90	30100	$ 38.90
Upper Front Shield	7	30250	$ 4.30	30250	$ 4.30	30250	$ 4.30	30250	$ 4.30
Switch Box	8	30252	$ 8.80	30252	$ 8.80	30450	$ 8.90	30450	$ 8.90
Switch Box Cover	9	30253	$ 3.50	30253	$ 3.50	30253	$ 3.50	30253	$ 3.50
Lower Front Shield	10	30256	$ 6.30	30256	$ 6.30	30256	$ 6.30	30256	$ 6.30
Motor Mounting Bracket	11	*34088	$ 4.40	*34088	$ 4.40	*34579	$ 2.50	*34579	$ 2.50
Burner	12	72107	$ 46.80	72107	$ 46.80	72107	$ 46.80	72107	$ 46.80
Pilot Bracket	53	34440	$ 4.90	34440	$ 4.90	34440	$ 4.90	34440	$ 4.90
Valve, VR8200H-1004, **Nat. W/78089 Dis. Bushing**	13	78090	$ 153.50	N/A	N/A	78090	$ 153.50	N/A	N/A
Valve, VR8200H-1103, **L.P. w/78089 Dis. Bushing**	13	78091	$ 158.60	N/A	N/A	78091	$ 158.60	N/A	N/A
Valve, VR8204H-1006, **Nat. w/78089 Dis. Bushing**	13b	N/A	N/A	78092	$ 150.70	N/A	N/A	78092	$ 150.70
Valve, VR8204H-1006 (Conv.), **L.P. w/78089 Bushing**	13b	N/A	N/A	78093	$ 150.70	N/A	N/A	78093	$ 150.70
Disappearing Bushing 1/2x3/8	N/A	78089	$ 2.40	78089	$ 2.40	78089	$ 2.40	78089	$ 2.40
Manifold	14	72103	$ 23.50	72103	$ 23.50	72103	$ 23.50	72103	$ 23.50
Burner Orifice, **Natural Gas**	15	72147	$ 4.20	72147	$ 4.20	72140	$ 4.20	72140	$ 4.20
Burner Orifice, **L.P. Gas**	15	72149	$ 4.20	72149	$ 4.20	72141	$ 4.20	72141	$ 4.20
Fan Motor	16	72108	$ 90.70	72108	$ 90.70	72110	$ 103.00	72110	$ 103.00
Fan Blade	17	78101	$ 29.60	78101	$ 29.60	78101	$ 29.60	78101	$ 29.60
Rubber Grommet (Requires 4)	18	**78010	$ 3.80	**78010	$ 3.80	**78010	$ 3.80	**78010	$ 3.80
Limit Switch 60T11-L220F	19	N/A	N/A	N/A	N/A	72160	$ 7.20	72160	$ 7.20
Limit Switch 60T11-L180F	19	78065	$ 7.20	78065	$ 7.20	N/A	N/A	N/A	N/A
Fan Switch 60T12-120-15 Deg. F	20	78067	$ 7.50	78067	$ 7.50	78067	$ 7.50	78067	$ 7.50
Speed Switch 60T13-F160-30	21	N/A	N/A	N/A	N/A	78066	$ 10.90	78066	$ 10.90
Aux. Limit Switch 60T15-L350	22	78086	$ 11.40	78086	$ 11.40	78086	$ 11.40	78086	$ 11.40
Thermostat 24 Volt	23	78355	$ 24.60	78355	$ 24.60	78355	$ 24.60	78355	$ 24.60
Transformer	24	78069	$ 28.90	78069	$ 28.90	78069	$ 28.90	78069	$ 28.90
Transformer Plate	N/A	34089	$ 4.60	34089	$ 4.60	34089	$ 4.60	34089	$ 4.60
Terminal Board	35	78300	$ 6.20	78300	$ 6.20	78300	$ 6.20	78300	$ 6.20
Pilot 0.140.512, **Natural Gas (w/Electrode)**	25	72020	$ 27.80	N/A	N/A	72020	$ 27.80	N/A	N/A
Pilot 0.140.502, **L.P. Gas (w/Electrode)**	25	72021	$ 27.80	N/A	N/A	72021	$ 27.80	N/A	N/A
Cozy Handle	26	84003	$ 2.70	84003	$ 2.70	84003	$ 2.70	84003	$ 2.70
Thermostat Wire	27	74518	$ 1.70	74518	$ 1.70	74518	$ 1.70	74518	$ 1.70
Thermocouple Q309A1954	28	78095	$ 14.00	N/A	N/A	78095	$ 14.00	N/A	N/A
Insulated Staples	29	74209	$ 1.60	74209	$ 1.60	74209	$ 1.60	74209	$ 1.60
Pilot Assy. Electronic w/Flame Ignitor **Nat.**	25b/28b	N/A	N/A	78098	$ 36.60	N/A	N/A	78098	$ 36.60
Pilot Assy. Electronic w/Flame Ignitor **L.P.**	25b/28b	N/A	N/A	78099	$ 36.60	N/A	N/A	78099	$ 36.60
Wiring Harness	30	72251	$ 23.00	72251	$ 23.00	72250	$ 25.90	72250	$ 25.90

Mr. Contractor, we only sell parts through our wholesalers, but the prices listed above are for your convenience. For prompt parts service, contact the wholesaler from which you purchased your Cozy heater. NOTE: Parts & schematic drawings on current models are shown at **www.cozyheaters.com**.

PARTS LIST CONTINUED

* Requires 2 ** Requires 4

HOW TO PROPERLY ORDER PARTS

In addition to part description and part number, please give model number, serial number, and type of gas used.

MODEL NUMBER	NAT. L.P.	DVCF403C-H DVCF404C-H		DVCF407C-H DVCF408C-H		DVCF553C-H DVCF554C-H		DVCF557C-H DVCF558C-H	
PART DESCRIPTION	REF. NO.	PART NO.	LIST PRICE	PART NO.	LIST PRICE	PART NO.	LIST PRICE	PART NO.	LIST PRICE
Power Cord	N/A	78213	$ 5.80	78213	$ 5.80	78213	$ 5.80	78213	$ 5.80
Sight Glass	31	43252	$ 8.00	43252	$ 8.00	43252	$ 8.00	43252	$ 8.00
Sight Glass Cover	32	43258	$ 1.90	43258	$ 1.90	43258	$ 1.90	43258	$ 1.90
Sight Glass Gasket - 1-3/8x3"	33	72067	$ 1.90	72067	$ 1.90	72067	$ 1.90	72067	$ 1.90
Burner Box Gasket	34	72059	$ 7.20	72059	$ 7.20	72059	$ 7.20	72059	$ 7.20
Slip Joint Assembly w/Gaskets	50	34220	$ 33.40	34220	$ 33.40	34220	$ 33.40	34220	$ 33.40
Slip Joint Gasket - 3-1/2x7	N/A	72057	$ 5.80	72057	$ 5.80	72057	$ 5.80	72057	$ 5.80
Slip Joint Ring Gasket - 9-1/2" Circle	61	72056	$ 2.70	72056	$ 2.70	72056	$ 2.70	72056	$ 2.70
Slip Jt. Ring Gsk. (2 pc. Graphite) 3-3/4x7-1/2"	N/A	72058	$ 5.80	72058	$ 5.80	72058	$ 5.80	72058	$ 5.80
Flue Outlet Pipe Gasket - 7" Circle	36	72055	$ 2.30	72055	$ 2.30	72055	$ 2.30	72055	$ 2.30
Air Intake Pipe Gasket - 9-1/2" Circle	37	72054	$ 4.60	72054	$ 4.60	72054	$ 4.60	72054	$ 4.60
Heat Exchanger Cover Plate	52	34195	$ 4.40	34195	$ 4.40	34195	$ 4.40	34195	$ 4.40
Heat Exchanger Cover Plate Gasket - 7x6"	38	72053	$ 2.00	72053	$ 2.00	72053	$ 2.00	72053	$ 2.00
Burner Box Inlet Gasket - 11-1/2x5" (Air Box)	39	72052	$ 8.60	72052	$ 8.60	72052	$ 8.60	72052	$ 8.60
Exhaust Pipe Gasket - 7" Circle	40	72051	$ 2.70	72051	$ 2.70	72051	$ 2.70	72051	$ 2.70
Manifold Gasket - 2x2"	55	72068	$ 1.90	72068	$ 1.90	72068	$ 1.90	72068	$ 1.90
Piezo Igniter	41	80016	$ 7.00	N/A	N/A	80016	$ 7.00	N/A	N/A
Igniter Wire 0.028.508	42	72022	$ 5.80	N/A	N/A	72022	$ 5.80	N/A	N/A
Ignition ControlBox S8600B, Honeywell	43	N/A	N/A	78097	$ 157.10	N/A	N/A	78097	$ 157.10
Heat Exchanger Kit	44	34805	$ 334.30	34805	$ 334.30	34815	$ 336.90	34815	$ 336.90
Vent Cap Assy. w/Spacer Plate Complete	45 & 46	34250	$ 157.00	34250	$ 157.00	34250	$ 157.00	34250	$ 157.00
Vent Cap Mounting Kit	47	34330	$ 13.10	34330	$ 13.10	34330	$ 13.10	34330	$ 13.10
Air Intake Pipe Assembly	48	34280	$ 34.90	34280	$ 34.90	34280	$ 34.90	34280	$ 34.90
Vent Exhaust Pipe Assembly	49	34290	$ 27.20	34290	$ 27.20	34290	$ 27.20	34290	$ 27.20
Elbow 3/8x90 Degree	N/A	84501	$ 2.50	84501	$ 2.50	84501	$ 2.50	84501	$ 2.50
Air Drop Assembly	51	34201	$ 152.80	34201	$ 152.80	34630	$ 171.90	34630	$ 171.90
Burner Box Bottom Assembly	58	34400	$ 62.40	34400	$ 62.40	34400	$ 62.40	34400	$ 62.40
Burner Access Door	56	34425	$ 13.50	34425	$ 13.50	34425	$ 13.50	34425	$ 13.50
Burner Access Gasket - 4x13"	57	72065	$ 10.10	72065	$ 10.10	72065	$ 10.10	72065	$ 10.10
90 Deg. Pilot Fitting	N/A	N/A	N/A	70352	$ 13.10	N/A	N/A	70352	$ 13.10
Pilot Tube Bracket	60	34475	$ 2.40	34475	$ 2.40	34475	$ 2.40	34475	$ 2.40
Vent Terminal Shield	N/A	34950	$ 74.60	34950	$ 74.60	34950	$ 74.60	34950	$ 74.60
Pilot Tubing w/Fittings - 16"	N/A	78452	$ 6.60	78452	$ 6.60	78452	$ 6.60	78452	$ 6.60
Pilot Tube Gasket - 2-1/2x3/4"	59	72063	$ 1.60	72063	$ 1.60	72063	$ 1.60	72063	$ 1.60
Lighting Instructions DVCF	N/A	91260	N/C	91261	N/C	91260	N/C	91261	N/C

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TROUBLE SHOOTING CHART

For use by a qualified installer or service technician.

SYMPTOM	POSSIBLE CAUSES	CORRECTIVE ACTION
Flame too large	1. Defective operator section of valve. 2. Burner orifice too large. 3. If installed above 2,000 feet.	1. Replace valve. 2. Check with local gas company for proper orifice size and replace. 3. See orifice chart, page 10.
Yellow burner flame	1. Clogged burner ports. 2. Obstructions around vent cap.	1. Remove main burner and check for obstructions in throat, ports, and orifices. Clean - but do not enlarge ports or orifices. 2. Make sure area around vent cap is clear, be sure vent system is sealed.
Gas Odor	1. Gas leak.	1. See Page 1.
Delayed Ignition	1. Pilot flame too small. 2. Burner ports clogged at pilot. 3. Low gas pressure. 4. Pilot decreases in size when main burners come on.	1. Adjust pilot flame. 2. Clean burner ports (do not enlarge). 3. Check gas supply pressure. 4. Supply piping is too small. Consult local gas company or competent installer.
Failure to ignite	1. Main gas off. 2. Thermostat not set high enough to call for heat. 3. Clogged burner orifice. 4. Thermostat wired wrong or defective.	1. Open all manual gas valves. 2. Set thermostat to higher temperature. 3. Clean burner orifice (do not enlarge). 4. Check wiring, jump across thermostat terminals at valve, if valve open, re-check wires, replace thermostat.
Burner won't turn off	1. Defective or damaged thermostat wire, or thermostat. 2. Thermostat location. 3. Defective or sticking valve. 4. Excessive gas pressure.	1. Can be checked by removing wire from valve terminal. If valve goes off, replace wire or thermostat. 2. Follow instructions, check location. 3. Replace valve. 4. Contact utility supplying gas.
Incorrect gas input	1. Gas input not checked. 2. Clogged orifice.	1. Re-check gas input. 2. Clean orifice with a smooth wood toothpick, do not enlarge.
Not enough heat	1. Furnace undersized. 2. Thermostat set too low. 3. Incorrect supply pressure.	1. This is especially true when a dwelling or room is enlarged. Have the heat loss calculated and compare to furnace output. Your gas company can supply you with this information. If furnace is undersized, replace with correct size unit. 2. Raise temperature setting. 3. Check supply pressure.
Too much heat	1. Thermostat set too high. 2. Combination control valve stuck open.	1. Lower temperature setting. 2. Replace combination control valve.
Pilot and main burner go out during normal operation	1. Weak thermocouple. 2. Input too high. 3. Cover around pilot lighter hole not air tight. 4. Vent tubes not properly installed or sealed.	1. Check millivoltage and replace if low. 2. Check input rate. 3. Tighten wing nuts securing cover and sight glass. Check and replace gasket if needed. 4. Follow instructions. Check both exhaust and air intake tubes, and vent cap. Be sure all gaskets are in place and properly sealed. Use only tubes and vent cap supplied. Do not alter vent tubes or cap.

TROUBLE SHOOTING CHART - Continued

For use by a qualified installer or service technician.

SYMPTOM	POSSIBLE CAUSES	CORRECTIVE ACTION
Burner won't turn on	1. Gas valve not turned on. 2. No voltage to valve. 3. Defective thermostat. 4. No 115 V. Line voltage. 5. Gas valve defective. 6. Manual reset switch not engaged.	1. Turn gas valve to "on" position. 2. Check for 24 Volts to valve from transformer. 3. Check wall thermostat. 4. Provide line voltage. 5. Replace gas valve. 6. Depress red button on switch.
(STANDING PILOT) Pilot won't light, or stay lit	1. Air in line. 2. Defective thermocouple 3. Pilot flame too low. 4. Manual reset switch not engaged.	1. Bleed line. 2. Replace thermocouple. 3. Adjust pilot flame. 4. Depress red button on switch.
(I.I.D. PILOT) Pilot won't light	1. Sparker won't work. 2. Sparker won't light pilot. 3. Manual reset switch not engaged.	1. Check wire connections, provide adequate ground. 2. {a} Pilot flame too small. {b} Turn valve to "on" position. {c} Check for pilot restriction. 3. Depress red button on switch.

TROUBLE SHOOTING CHART FOR INTERMITTENT IGNITION SYSTEM (I.I.D.) - SEE "PAGE 21"

SERVICE RECORD	

SERVICE RECORD	

TROUBLE SHOOTING CHART FOR INTERMITTENT IGNITION SYSTEM (I.I.D.)

Green LED Flash Code (XxY)[a]	Indicates	Next System Action	Recommended Service Action
OFF	No "Call for Heat"	Not applicable	None
Flash Fast	Startup - Flame sense Calibration	Not applicable	None
Heartbeat	Normal operation	Not applicable	None
2	5 minute Retry Delay ?Pilot flame not detected during trial for ignition	Initiate new trial for ignition after retry delay completed.	If system fails to light on next trial for ignition check gas supply, pilot burner, spark and flame sense wiring, flame rod contaminated or out of position, burner ground connection.
3	Recycle ?Flame failed during run	Initiate new trial for ignition. Flash code will remain through the ignition trial until flame is proved.	If system fails to light on next trial ignition, check gas supply, pilot burner, flame sense wiring, contamination of flame rod, burner ground connection.
4	Flame sensed out of sequence	If situation self corrects within 10 seconds, control returns to normal sequence. If flame out of sequence remains longer than 10 seconds, control goes to Flash code 6+4 (see below).	Check for pilot flame. Replace gas valve if pilot flame present. If no pilot flame, cycle "Call for Heat". If error repeats, replace control.
7	Flame sense leakage to ground	Control remains in wait mode. When the fault corrects, control resumes normal operation after a one minute delay.	Check flame sense lead wire for damage or shorting. Check that flame rod is in proper position. Check flame rod ceramic for cracks, damage or tracking.
8	Low secondary voltage supply - (below 15.5 Vac)	Control remains in wait mode. When the fault corrects, control resumes normal operation after a one minute delay.	Check transformer and AC lines for proper input voltage to the control. Check with full system load on the transformer.
6 + 2	5 minute Retry Delay - On every third retry on the same "Call for Heat"	Initiate new trial for ignition after retry delay completed.	Check gas supply, pilot burner, spark and flame sense wiring, flame rod contaminated or out of position, burner ground connection.
6 + 3	On every 6th flame failure during run on the same "Call for Heat"	5 minute retry delay, then initiate new trial for ignition.	Check gas supply, pilot burner, flame sense wiring, contamination of flame rod, burner ground connection.
6 + 4	Flame sensed out of sequence - longer than 10 seconds	Control waits until flame is no longer sensed and then goes to soft lockout. Flash code continues. Control auto resets from soft lockout after one hour.	Check for pilot flame. Replace gas valve if pilot flame present. If no pilot flame, cycle "Call for Heat". If error repeats, replace control.
ON	Soft lockout due to error detected during self check sequences	Control auto resets from soft lockout after one hour.	Reset by cycling "Call for Heat". If error repeats, replace the control.

LIMITED WARRANTY

The Louisville Tin & Stove Co. warrants to the original user the accompanying product for the period specified herein, provided said product is installed, operated, maintained, serviced, and used according to the instructions and specifications accompanying the product. **AS OUTLINED IN OUR INSTRUCTIONS, ANY WARRANTY CONSIDERATIONS ARE CONTINGENT ON INSTALLATION BY A QUALIFIED INSTALLER (CONTRACTOR). SELF-INSTALLATION IS PROHIBITED AND WILL INVALIDATE YOUR WARRANTY.**

If within a period of one year from the date of installation of the product, any part supplied by the manufacturer proves to be defective due to workmanship or material, it will replace such part, provided parts have not been subjected to misuse, alteration, neglect, or accidents. The term of the warranty for the heat exchanger and burners is covered in Table A below. Any claim not made within ten (10) days after the expiration of the warranty period shall be deemed waived by the user.

The manufacturer shall have no liability or be required to perform any obligation under this warranty unless, when requested, the user returns, at the user's expense, the component or product claimed defective, to the manufacturer for inspection, to enable the manufacturer to determine if the claimed defect is covered by this warranty.

No charges for freight, labor or other expenses incurred in the repair, removal, or replacement of any product or component claimed to be defective, will be paid by the manufacturer to the user, and the manufacturer will not be liable for any expenses incurred, by the user, in remedying any defect in the product.

Service under this warranty is the responsibility of the installer. In the event service under this warranty is needed, the user of the product shall request such service directly from the installer. If the user is unable to locate the installer, the user should write directly to the manufacturer, and the name of an alternative service source will be supplied.

The product safety registration card (packed inside the appliance) must be completed and returned to the factory.

THIS WARRANTY IS EXPRESSLY IN LIEU OF ANY OTHER WARRANTIES, EXPRESS OR IMPLIED (WHETHER WRITTEN OR ORAL). ANY IMPLIED WARRANTY OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE IS EXPRESSLY LIMITED TO THE DURATION OF THE MANUFACTURER'S EXPRESS, WRITTEN WARRANTY.

UNDER NO CIRCUMSTANCES SHALL THE MANUFACTURER BE LIABLE FOR ANY SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGES OR EXPENSES ARISING DIRECTLY OR INDIRECTLY FROM ANY COMPONENT OR FROM THE USE THEREOF. THE REMEDIES SET FORTH HEREIN SHALL BE THE EXCLUSIVE REMEDIES AVAILABLE TO THE USER AND ARE IN LIEU OF ALL OTHER REMEDIES.

SOME STATES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS, SO THE ABOVE LIMITATIONS MAY NOT APPLY TO YOU.

SOME STATES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATIONS OR EXCLUSIONS MAY NOT APPLY TO YOU.

THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS, AND YOU MAY ALSO HAVE OTHER RIGHTS, WHICH VARY, FROM STATE TO STATE.

TABLE A

	Warranty Period	
Product	**Heat Exchanger/Tubes**	**Burners**
Cozy Gas Fired Floor Furnace	10 Years	10 Years
Cozy Gas Fired Wall Furnace	10 Years	10 Years
Cozy Gas Fired Vented Console Heater	10 Years	10 Years
Cozy Gas Fired Direct Vent Heater	10 Years	10 Years
Cozy Gas Fired Counterflow Furnace	10 Years	10 Years
Cozy Gas Fired Counterflow Direct Vent Furnace	10 Years	10 Years
Cozy Gas Fired Mobile Home Direct Vent Furnace	10 Years	10 Years
Cozy Gas Fired Hi-Efficient Direct Vent Wall Furnace	10 Years	10 Years
Cozy Gas Fired Direct Vent Baseboard Heater	10 Years	10 Years
Cozy Fan-Type, Direct Vent Through-The-Wall Gas Heater	10 Years	10 Years
Cozy Blue Flame Vent Free Heater	N/A	10 Years
Cozy Infra-Red Vent Free Heater	N/A	N/A

LOUISVILLE TIN & STOVE COMPANY
737 S. 13TH STREET - LOUISVILLE, KY. 40210